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## **Identity Horizons among Finnish Post-Secondary Students: A Comparative Analysis**

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### **Abstract**

This article examines the identity horizons of post-secondary students in Finland—a country in which social welfare provisions buffer education-to-work transitions—comparing their identity horizons to those previously reported for American and Japanese students. Confirmatory factor analyses revealed scalar invariance of the Finnish version of the Identity Horizons Scales with the English and Japanese versions. Latent mean comparisons found that Finnish students had the broadest educational and work horizons, and lowest education-to-work identity anxiety. Finnish males reported lower levels of educational horizons and higher levels of identity anxiety than females, replicating previous findings in other countries. Social-class differences were also detected, with higher levels of identity anxiety and narrower educational horizons among those whose parents had no post-secondary education.

(120 words)

**Keywords:** identity formation; university students; educational attainment; occupational attainment; anxiety; cross-cultural comparisons

## Introduction

Identity researchers have from the outset shown an interest in identity formation among college and university students (e.g., Marcia, 1966; Waterman & Waterman, 1971). As the transition to adulthood has become prolonged over the past few decades, attention has shifted to the long-term implications of identity formation for various adulthood transitions (e.g., Fadjukoff, Pulkkinen, & Kokko, 2016), including transitions from higher education settings to the workplace (e.g., Luyckx, Schwartz, Goossens, & Pollock, 2008; Luyckx, De Witte, & Goossens, 2011; Skorikov & Vondracek, 2010). At the same time, in addition to long-standing concerns regarding gender differences (e.g., Archer, 1989) and the effects of social class (e.g., Aries & Seider, 2007; Phillips & Pittman, 2003; Thomas & Azmitia, 2014), attention has been turning to cultural variations in these transitions (e.g., Schwartz, 2012; Smith, 2010; Sugimura & Mizokami, 2012; Yuan & Ngai, 2016). It is quite likely that countries differ considerably in terms of the quality of the support systems they provide for lengthy transitions to the workplace, but little empirical research is available in terms of how identity formation can be supported during these transitions at the macro, societal level (cf. Côté, 2006; Côté & Allahar, 1996).

One recent approach that subsumes these concerns is the Identity Horizons Model (Côté & Levine, 2016), which proposes that people's *identity horizons* play an important role in how they perceive their future options in making life-altering choices as they transition to adulthood. These decisions include pursuing higher levels of education and careers that might require significant life changes. As the transition to adulthood has become more individualized in many cultures, this decision-making task has become more problematic for many people (e.g., Côté, 2002; Oyserman & Destin, 2010).

Based on the Identity Horizons Model, Côté, Mizokami, Roberts, Nakama, Meca, and Schwartz (2015) introduced the Identity Horizons Scales (IHS), which measures educational horizons, work horizons, and education-to-work identity anxieties among (4-year) undergraduates and (2-year) college students. Broader educational horizons include beliefs that higher levels of education are beneficial for personal and intellectual development, even if they require transformative experiences and major life changes. Similarly, broader work horizons include a willingness to take on an interesting and rewarding career, even if such an option would not be supported by parents or peers, and required moving from where the person grew up. The IHS also operationalizes feelings of insecurity that can undermine broad horizons—anxieties about possible options for work-identity and educational-identity. These anxieties involve fears about possible unpleasant experiences with peers and parents, as well as unwelcome identity changes, if the person pursued higher levels of education or a higher-level career.

The Identity Horizons Model is based on the premise that structure and agency interact in myriads ways that are consistent with developmental contextualism (e.g., Lerner & Kauffman, 1985). In reference to social class, the model proposes that the lower a person's social class origins, the more likely the experience of anxieties that undermine broader horizons, in part because peers and parents have narrow horizons and would not support decisions that would take students beyond those horizons. Conversely, those from higher social class origins would be more likely to have broader horizons, and fewer anxieties, both in terms of parental influences and better economic opportunities. However, even within middle class samples, wide variations in horizons/anxieties can be expected based on structure–agency interactions associated with factors other than social class, such as structural factors like gender and ethnicity, and agentic factors like proactive academic motivations and active engagement in courses.

Côté et al. (2015) developed the IHS items with wording specifically relevant to college and undergraduate students, testing it with samples in the United States and Japan, finding that the Identity Horizons Model can be applied in both countries/cultures. The cross-cultural empirical comparison was undertaken because of theoretical concerns in the literature that Western formulations of self and identity development may be ethnocentric, biased by a Western emphasis on high degrees of individualism (e.g., Markus & Kitayama, 1991). Allaying these concerns with respect to the Identity Horizons Model, Côté et al. (2015) found an invariant measurement model with a subset of IHS items (13 of 20 items) and a comparable structural model characterizing the correlations among the three IHS subscales. They also observed significant correlations of the IHS subscales with established measures of identity formation (Berzonsky et al., 2013) and personal agency (Crant & Kraimer, 1999). These latter correlations support the premise of the Identity Horizons Model that educational and work horizons/anxieties are rooted in part in identity formation and personal agency.

This cross-cultural assessment also found, as hypothesized, that the Japanese sample had lower horizons with respect to both educational and work prospects, along with higher education-to-work anxieties (Côté et al., 2015). These hypotheses were based on the differences between the two country's educational systems (more restricted access to post-graduate studies in Japan) and economic conditions (a long-term economic downturn in Japan along with a decline in the obligation of Japanese employers to provide life-long employment). In addition, evidence has been reported of an "inward tendency" among Japanese youth. This inward tendency involves a mindset that is more local than global, with a reluctance to travel, study, or move abroad (Fujita, 2014; The Nikkei Asian Review, 2013).

Although the overall model was supported in the Japanese context, minor differences in the correlations between the American and Japanese samples on the IHS subscales were found. These findings were interpreted in terms of the ongoing process by which Japanese culture is blending—on a generational basis among younger cohorts—its traditional collectivistic practices, which were rooted in filial piety and interpersonal obligations, with an emerging individualization of the life course (Sugimura & Mizokami, 2012). Accordingly, this cultural shift toward individualization may be creating a greater sense of uncertainty about future educational and work prospects, which is exacerbated by increased pressures on young Japanese to obtain college and undergraduate credentials in order to more effectively transition to a workplace that itself is in transition. The sense of personal consequences currently felt by American students, for whom the individualized life course is commonplace, may be intensified among Japanese students who have fewer role models for undertaking individualized transitions (Brinton, 2011), a difference that might be associated with the different mean scores on the IHS subscales.

Côté et al. (2015) also found gender and social class differences in identity horizons. Overall, males reported narrower educational horizons and greater education-to work anxiety, replicating findings from a study of Canadian high school students upon which the Identity Horizons Model is based (Côté, Skinkle, & Motte, 2008). An unexpected finding, however, was an interaction effect for work horizons, with American females reporting the broadest work horizons and Japanese females reporting the narrowest work horizons, with males from both cultures in between. This finding was interpreted in terms of the dramatic differences in educational participation and occupation attainment for American and Japanese women. With respect to social class differences, Côté et al. (2015) reported that those without parents

possessing higher-level credentials reported lower educational/work horizons and higher education-to-work identity anxiety, also replicating earlier findings about the greater difficulties faced by “first-generation” students (Côté et al., 2008).

*Cross-cultural considerations related to the Finland*

The present study assessed the Identity Horizons Model in Finland, a country with notable educational, cultural, and political-economy differences from both Japan and the United States that potentially influence experiences of the education-to-work transitions of college and university students, and hence identity formation. At the macro level of the political economy, the Finnish welfare state provides collectivist supports for young Finns during their transition from education to work life by providing health insurance, social insurance, and free higher education. These supports are consistent with the Nordic cultural model of State-mediated collectivism.

Based on these macro influences, the educational system in Finland differs from the systems in the US and Japan in several ways that may mitigate the sense of personal-risk consequences associated with the individualization of the life course by providing numerous forms of collectivist support. Notable features of the Finnish educational system include: (1) a rigorous primary comprehensive education (i.e., the same educational experiences for students from all social class backgrounds), (2) upper-secondary vocational and academic tracks that sort students on the basis of abilities and interests, and (3) a matriculation examination for entrance into universities. For those admitted to the post-secondary system—which has both well-funded universities and polytechnics—after this preparation and sorting, tuition is free and financial aid is generous. In contrast, both the US and Japan have tuition fees that are among the highest in the

world. Indeed, Japan is classified by the OECD as a country with high tuition fees and low student support from public financial aid (OECD, 2011).

Educational policy aims in Finland have evolved over the decades to give everyone the opportunity to study to their fullest capacity, and to encourage everyone to gain a post-compulsory qualification, in either a vocational or academic institution. Internationally, the level of education of the young Finns is amongst the world's highest (DiPrete & Buchmann, 2013; OECD, 2010, 2016). Only about one in six of Finns in their twenties has no post-compulsory qualification (19-20% of men and 13-14% of females; Tilastokeskus, 2015; Witting, 2014). About 90% of 25 to 34 year olds have attained at least an upper secondary education.

Because of their more intensive primary and secondary education, Finnish young people start their higher education later than young people in many other countries: the median starting age in tertiary education is 20, and the median age of all students in higher education is 25 (Opiskelijatutkimus, 2014). Two-thirds of students take a break of at least one year from studies (before or during current studies). (Military service is compulsory for young Finnish men, with many taking a one-year break from education to fulfill this obligation.) This “gap year” corresponds with a type of moratorium period identified by Erikson (1968), which provides a break from achievement pressures during which young people can consider their long-term future plans. Indeed, Salmela-Aro (2013) reported that Finnish students who take advantage of such a moratorium period experience lower levels of academic burnout.

Most Finnish post-secondary students are full-time (83%), spending on average 32 hours a week studying. One half (48%) is gainfully employed in addition to studying. Over a half of students (59%) feel they are progressing in their studies as planned. The average income of a student living independently was 800 EUR (a month) in 2013. About half of their income is



derived from employment; one third comes from student aid; eight per cent from parents; and 13 per cent from other sources. Finnish research also finds that most students feel confident about the future (Helve, 2013; Opiskelijatutkimus, 2014; Saarenmaa, Saari, & Virtanen, 2010; Villa, 2016). Thus, the higher-educational system may be more of a “haven” for Finnish students than in many other countries, providing more of a sense of security and opportunity and being less of a source of anxiety.

The workplace into which graduates enter has similarly benign features. A 2012 Finnish governmental initiative to combat youth unemployment and exclusion includes a social guarantee for young people. The aim is to guarantee every early school-leaver a place in the upper secondary school, in vocational education and training, in apprenticeship training, in a youth workshop, or a work placement (including on-the-job training or wage-subsidized work) (Ministry of Education and Culture, 2016). The “right to support” (minimum income) is ensured when students have completed a vocational qualification.

Although the transition from education to work for young Finns can be a time of waiting and uncertainty, as it is internationally, youth employment prospects have become a political question in Europe, and the Finnish situation can be understood in the European context in which policies have been developed to mitigate individual risk and consequence (more so than is the case in the North American and Asian contexts). The EU Strategy 2020’s initiatives on youth and employment (i.e., “Youth on the Move” and “New Skills for New Jobs”) are committed to improving qualifications and skills of young people in order to facilitate their access to the labour market. These policy approaches are also proactive and based on tangible recommendations, such as the “youth guarantee” (European Commission, 2010). Thus, whereas the workplace in Finland has suffered many of the setbacks experienced by other countries over the past few decades,

including declines in opportunities in youth labour markets, Finland's welfare state is more comprehensive than in either the US or Japan, providing more of a safety net for those making education-to-work transitions, thereby reducing individual risk and consequence. In contrast, a recent 18-country study found that Japanese young people have the most pessimistic outlook of all regarding their career prospects (ManpowerGroup, 2016).

### *Hypotheses*

In order to evaluate the hypothesized benign role of Finnish culture in the formation of identity horizons, the results of a study conducted in Finland are compared below to results reported by Côté et al. (2015) for comparable American and Japanese samples. For both education and work horizons, because of the generous supports for education-to-work transitions in Finland, the principal hypothesis is of broader horizons and lower levels of identity anxiety among Finnish post-secondary students, than among American and Japanese students. It is also hypothesized that the correlations among the IHS subscales will be similar to those found for American students.

With respect to gender differences, males have been found in previous research in several countries to have narrower educational horizons and greater levels of education-to-work anxiety (Côté et al., 2015; Côté, 2008). As in many other countries, including the US, Finnish females have recently exceeded males in terms of their participation in higher education, whereas Japan still has a relatively low participation rate in higher education for women in comparison to men (about 40% vs. 60%; DiPrete & Buchmann, 2013). Accordingly, it is hypothesized that these gender differences will be found in Finland. A caveat regarding this hypothesis, however, comes from a study that found no gender differences in Finland with respect to the academic engagement of secondary and post-secondary students (Tuominen-Soini & Salmela-Aro, 2014).

The absence of gender differences in the related construct of academic engagement contrasts with well-established gender differences in academic engagement in countries like the US and Canada where females show much higher levels of engagement than males (Côté & Allahar, 2011; DiPrete & Buchmann, 2013).

Level of parental education has also been found in previous research to have a bearing of student's horizons and anxieties. However, given the political economy in which the Finnish educational system is embedded, wherein efforts have been made to address social-class disadvantages, we hypothesize that social class differences will be muted among Finnish students. This hypothesis is supported by Tuominen-Soini & Salmela-Aro (2014), who found no socio-economic status differences among young Finns in terms of academic engagement and burnout. They concluded that this null finding was "not surprising in the Finnish context and in light of the Nordic welfare policy" (p. 659).

## **Method**

### **Sample**

Data were collected online between March and October 2015 from students at six scientific universities and all 23 Finnish-speaking Universities of Applied Sciences (in all regions) of Finland. Invitations were distributed through university and student union mailing lists. Using this method, 615 undergraduate/college students 18 to 24 years old who had not yet completed their programmes were recruited (this type of sample was targeted because the wording of the IHS items were designed for the circumstances of this demographic). In order to obtain fit indices when conducting Confirmatory Factor Analysis (CFA) using AMOS 23, it is necessary to eliminate all cases with missing data on any of the measurement items being

analyzed. Missing data affected 3% of the cases on the Identity Horizons Scales, and appeared to be randomly dispersed. According to Garson (2015, para 7658), “a rule of thumb is to use listwise deletion when this would lead to elimination of 5% of the sample or less.” Listwise deletion of missing cases produced a sample of 595 students ( $M_{\text{age}} = 21.68$ ;  $SD = 1.46$ ; with 165 [28%] males and 430 [72%] females). Similar to previous online surveys of Finnish students, gender was the main factor affecting response rate (see Villa, 2016; Helve, 2013). Ethnic breakdown for the sample was approximately 97% Finnish and 3% “other.”

The results from the Finnish (FN) sample are presented below in Tables 1 and 2 along with comparable results published by Côté et al. (2015) using two samples: an American (US) sample (546 college and university students 18 to 24 years old ( $M_{\text{age}} = 21.21$ ;  $SD = 1.90$ ; males and females almost equally represented, with 54/46%, respectively) and a Japanese (JP) sample (505 college and university students 18 to 24 years old [ $M_{\text{age}} = 20.39$ ;  $SD = 1.43$ ], with males and females equally represented; 50.7% female).

## Measures

### *Identity Horizons Scales (IHS)*

Because many concepts and terms entail culture-specific connotations, their direct translation can be problematic, including certain concepts differing substantially across cultures (cf. Jowell, 1998). Therefore, the Finnish translation of the Identity Horizons Scales (IHS) was double checked from the original English version of the questionnaire to ensure overall conceptual equivalence, as well as to consider vocabulary equivalence. In the back-translation procedure, the original version of the questionnaire was translated into Finnish and subsequently translated back into English using Google Translator. We repeated this procedure to double check that the original meaning had been retained. However, back-translation does not guarantee

overall conceptual equivalence (Peng et al., 1991). In order to crosscheck for possible translation mistakes and to ensure comprehension of the translated questionnaire among respondents, pilot testing was conducted on five university students. Their feedback helped to find simpler Finnish sentence structures as well as clear and familiar wording in translation. The double checking of the translation and piloting the questionnaire indicated that the Finnish students understood the intended meanings.

Using SPSS AMOS 23, CFAs were conducted using the default Maximum Likelihood Estimator on the 13-item scale reported by Côté et al. (2015) as invariant (partial scalar) between the US and JP samples.<sup>1</sup> This 13-item scale showed an adequate fit for the Finnish sample, when covariances between three error terms were added. The first covariance improved the CFI from .89 to .90 (RMSEA = .06), the second increased the CFI to .93 (RMSEA = .05), and a third increased the CFI to .94 (RMSEA = .05).

Multigroup CFAs conducted on this measurement model with a dataset in which the items from all three cultural samples were merged (FN, US, and JP) confirmed this configural (number

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<sup>1</sup> Following Byrne (2010) and Blunch (2013), two complementary fit indices are most informative for larger samples in assessing measurement models: the Comparative Fit Index (CFI) and the Root Mean Square Error of Approximation (RMSEA). CFI values greater than .90 represent a reasonable fit, and those greater than .95 denote a good fit. When judging the adequacy of model fit, as degrees of stringency increase for assessments of the measurement model, changes in the CFI greater than .01 suggest that there is a significant change in fit for better or worse. The RMSEA is complementary to the CFI for larger samples (exceeding 200 cases) because it adjusts the  $\chi^2$ , which becomes unreliable with increasingly large samples. Values less than .08 represent an adequate fit, and those less than .05 signify a close fit.

of factors) invariance (RMSEA = .03; CFI = .95), as well as metric (factor loading) invariance (RMSEA = .03; CFI = .94). Côté et al. (2015) reported Cronbach's alphas of .67 (Work Horizons), .81 (Educational Horizons), and .85 (Education-to-Work Identity Anxiety) for overall sample. For the present Finnish sample, these alphas were, respectively, .55, .76, and .73. Sample items are, respectively: "I would take a really good job far from where I grew up"; "More education beyond my current program would help expand my understanding of the world"; and "Pursuing a higher level of education beyond my current program might confuse me about "who I am."/"Launching a career worries me because it may affect the personal relationships in my present life."

#### *Social class influences: First-Generation Graduate Student Status*

A dummy variable was used as a proxy for social class: First-Generation Graduate Student Status (0 = neither parent had a post-graduate education; 1 = at least one parent had a post-graduate education). In the FN sample, 27% reported at least one parent who had a post-graduate education.

## **Results**

#### *Latent mean analysis*

In assessing the cross-cultural comparability of the Finnish version of the IHS, three forms of invariance were examined: *configural*, *metric*, and *scalar*.<sup>2</sup> Arbuckle (2013) notes that most sources agree that in order to make meaningful comparisons of latent means, scalar

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<sup>2</sup> *Configural invariance* indicates that there are equal numbers of factors, and that each factor is associated with the same items, across groups. *Metric* invariance assesses the equivalence of the factor loadings of the items across samples. And, *scalar* invariance pertains to whether scores on the items have equivalent meanings in the samples, which is assessed in terms of the item (measurement) intercepts (Blunch, 2013).

invariance must be established (in addition to metric invariance) so that there is a degree of confidence that the items have the same meaning for respondents in the different samples. Thus, establishing scalar invariance is important for comparing the means of the latent factors (i.e., the means of the summed scores for each computed subscale) (e.g., Arbuckle, 2013). Assessing measurement invariance across the three language versions of the IHS is also important for judging the cross-cultural validity of the underlying theoretical constructs and empirical measures of them.

The analyses confirming configural and metric invariance are reported above. Following Arbuckle (2013), assessing scalar invariance can be undertaken while testing for differences in the means of the latent factors. This is done by constraining the means for the latent factors of one sample to “0” and comparing the samples as pairs. When this is done, AMOS output first provides indices for assessing the invariance of intercepts (scalar invariance), and then indices for evaluating potential latent mean differences. If acceptable fit-indices are found for intercepts but not means, a significant difference between sample means is evident. The following indices were found when the FN sample was compared the US, and then JP, sample in this manner:

- FN and US:
  - measurement intercepts: RMSEA = .05; CFI = .91;
  - latent means: RMSEA = .06; CFI = .83.
- FN and JP:
  - measurement intercepts: RMSEA = .04; CFI = .90 (6 covariances added);
  - latent means: RMSEA = .09; CFI = .52.

In both paired comparisons, the fit indices indicated that the measurement intercepts were sufficiently similar to warrant comparisons of latent means. The drop in the CFIs ( $> .01$ ) when

latent means were examined suggests that there are statistically significant differences between the latent means of the two samples compared.

Table 1 shows the means of the three cultural groups as well as for each gender within each group. In order to examine these mean differences in more detail, a series of two-way ANOVAs were performed, with each IHS subscale as a dependent variable in turn, and cultural sample and gender as fixed effects. Significant culture and gender effects were found for each subscale, and one interaction term was significant. SNK multiple range tests were used to assess the significance of cultural sample (three-group) differences and t-tests were used to examine gender differences (two-group) within each sample.

Table 1 about here

Consistent with previous research, FN males scored higher on the Education-to-Work Identity Anxiety subscale than FN females. (This gender effect was significant overall among the three samples ( $\eta^2 = .015$ ), but this difference was significant within culture only for the FN and US samples.) However, the between-culture differences on this subscale were substantial—with the difference between the FN and JP samples in the magnitude of 2 to 3 *SDs* ( $\eta^2 = .350$ ). Although there were gender differences, it should be noted that within the FN sample this form of anxiety was very low for both genders, whereas within the JP sample, both males and females reported similarly high levels of this form of anxiety.

The FN sample also stands out as scoring highest on the subscales Educational Horizons and Work Horizons, with differences in the magnitude of 1 *SD* distinguishing it from the JP sample. The partial eta squared ( $\eta^2$ ) in the ANOVA for cultural sample for Work Horizons was substantial (.213), about twice that for Educational Horizons (.104). Gender differences were significant overall for both forms of horizons but stronger for Educational Horizons ( $\eta^2 = .009$ )



than Work Horizons ( $\eta^2 = .002$ ), perhaps because of the significant interaction effect for Work Horizons ( $\eta^2 = .016$ ). This interaction can be seen in the means displayed in Table 1, with FN males scoring higher on Work Horizons than FN females (as was the case for males vs. females in the JP sample), whereas the reverse was true for the US sample, with US females scoring higher on the Work Horizons subscale than US males.

Table 2 presents three sets of subscale correlations for each cultural sample, broken down by gender within each sample. It can be seen that FN males and females show a similar correlational pattern among the IHS subscales, suggesting that the model applies similarly to each gender in Finland. In terms of cultural comparisons, the magnitudes of the correlations for the FN sample are generally between those of the JP and US samples.

However, two culture-by-gender differences among correlations are noteworthy in Table 2. The most striking contrast between the FN and US samples is the non-significant correlation between Educational Horizons and Work Horizons for FN males ( $r = .07$ ) and the much stronger one for US males ( $r = .47$ ). The difference between these correlations is significant ( $z = 4.42, p < .001$ ). Thus, there appears to be no connection between Educational Horizons and Work Horizons for FN males but one for US males that is of moderate effect size. Similarly, the relationship between Educational Horizons and Education-to-Work Identity Anxiety is significantly weaker for FN males than US males ( $-.16$  vs.  $-.39$ ;  $z = 2.52, p < .001$ ).

Table 2 about here

#### *Social class influences in the Finnish sample*

To examine social class influences through the proxy of parental education, two-way ANOVAs were performed on the FN sample, with First-Generation Graduate Student and gender entered as fixed factors, separately on each IHS subscale as the dependent variable. No

significant effects were found in any of the three analyses. In order to determine if any effects of social class could be found for the FN sample, we conducted post hoc analyses examining differences among *all levels* of parental education, including high school or less. Although only a small percentage of the FN sample reported having parents with only a high-school education or less (fathers = 16%; mothers = 12%), when compared to the rest of the sample, those whose fathers had only a high-school education or less scored significantly lower on the Educational Horizons subscale ( $t = 2.22, p < .05$ ) and higher on the Education-to-Work Identity Anxiety subscale ( $t = -2.35, p < .05$ ). Similarly, those whose mothers had only a high-school education or less had higher Education-to-Work Identity Anxiety scores ( $t = -2.67, p < .01$ ).

### Discussion

This study found that the Identity Horizons Model (IHM) applies to the Finnish education-to-work context in a manner consistent with the benign institutional supports currently found in Finland. Evidence was also found for scalar measurement invariance of the Finnish-language version of the Identity Horizons Scales (IHS) with the English and Japanese versions.

The establishment of scalar invariance on the Finnish version of the IHS allowed for meaningful comparisons of the latent (subscale) means of the Finnish sample with the results reported by Côté et al. (2015) for comparable American and Japanese samples. These comparisons support the Identity Horizons Model, upon which we predicted that the educational and work horizons of the Finnish sample would be broader, and the anxieties lower than those in the comparator cultural samples. The effect sizes of some of these results were rather dramatic, with unusually large mean differences between Finnish and Japanese students on all three IHS subscales, especially education-to-work identity anxiety. The American students consistently scored midway between the Finnish and Japanese students on the IHS subscales.

The gender differences in the Finnish sample replicate previous research in other countries where males reporting higher levels of education-to-work anxiety and lower levels of educational horizons than females. However, contrary to some findings in other countries, Finnish males in this sample had broader work horizons than Finnish females (indeed highest of all cultural/gender groups). Apparently, Finnish females find the educational system more accommodating than the workplace, while the reverse is true for Finnish males. This result is surprising in the context of the Nordic welfare state in which gender equality has been the object of considerable policy attention for some time, but it appears to be the case that FN men feel freer to change their lives and move geographically for the sake of better employment prospects.

As expected, in the analyses involving a proxy measure of social class background, parental post-graduate educational attainment levels were not related to identity horizons/anxieties (i.e., having one or both parents with a post-graduate education). However, further explorations of data revealed that Finnish students with parents having no college or university experience (i.e., only high school or less) reported higher levels of education-to-work anxiety, along with lower educational horizons (in the case of father's educational level), than those with parents with a post-secondary education. Apparently, it is necessary to dig deeper in Finnish society to detect the effects of social class on identity horizons. Thus, the effects of social class were still detected in the Finnish sample, but appear not to be as pronounced as the results suggest from Côté et al. (2015) for American and Japanese students where significant differences were reported for all three subscales between those who had parents with a postgraduate education and those who did not. In this sense, the Finnish welfare state is still not fully achieving its goal of equality of outcomes for all social classes (cf. Kivinen, Hedman & Kaipainen, 2007).

The correlational pattern among the IHS subscales allowed us to examine the structural model of the Identity Horizons Model. This pattern generally shows inter-subscale correlations among the Finnish sample that are midway between those previously reported for the American and Finnish samples. However, the correlations between educational horizons and work horizons among the Finnish sample show a somewhat different pattern, especially for Finnish males where the correlation is not significant. Apparently, educational horizons have no bearing on work horizons for Finnish males, whereas previous research found moderate correlations for both Japanese and American males. It is possible that Finnish males do not see a direct connection between their educational opportunities and work prospects, perhaps because their broader work horizons involve a greater willingness to move out of their comfort zones, supported by social welfare policies that assist in such moves. This interpretation applies in some degree to FN females as well, whose work horizons are broad in terms of international comparisons.

There are several reasons why Finnish students may show the above differences with American and Japanese students that relate to Finnish educational and work policies. As noted in the introduction, Finnish policies are based on social welfare principles in which there is less chance that young people will be left destitute because of the decisions they make and if their plans do not work out. For example, the Finnish welfare state provides students with health insurance, social insurance, and free higher education; new graduates can undertake myriad employment programmes; and workers are guaranteed a minimum income.

There are several ways in which these educational and workplace opportunities might broaden young Finn's horizons. Each region in Finland has higher education institutions (Saari, Inkinen, & Mikkonen, 2016). On average, across these regions about 28 per cent of university students annually move to other town or city in pursue of higher education, and 18 per cent

of students move to another town or city to get their professional training. Some 40 per cent of university students and 32 per cent of professional school students move to another region during the first year after completing their education. The only exception is the Helsinki region where student outflows are very small because of high concentration of education institutions in this region (Saari, Inkinen, & Mikkonen, 2016). Moreover, Finnish students study abroad proportionally more than Japanese students, and the proportion of young Finns studying abroad has been increasing in the past decade (Lehmusvaara, 2013). Thus, travel for education purposes appears not to be a significant obstacle in Finland, and the work policies discussed above suggest travel is not a significant structural obstacle for work prospects either. On the contrary, getting education elsewhere and living independently remains important for perceptions of adulthood among young Finns—relocation is often perceived as a positive resource (Helve 2013). In contrast, studying abroad has been decreasing among young Japanese (Takagi, 2016). The reluctance of Japanese students to study abroad has led to a recent initiative by the Japanese government to double the number of students doing so by 2020 (Ministry of Education, Culture, Sports, Science and Technology, 2014).

#### *Limitations and Future Research*

This study was limited in several ways. First, cross-sectional designs limit the ability to assess causality among variables. Second, relying on single-source measurement makes it difficult to validate certain aspects of the instruments. Third, online survey administrations can introduce sampling biases and measurement errors that are difficult to assess (Hewson et al., 2003). And fourth, it is difficult to develop survey questions that are free from cultural content. Item content-relevance can vary by country and the circumstances facing those from different backgrounds (gender, social class including first-generation student status) in ways that are

difficult to assess. For example, in Finland, the type of geographic mobility tapped by the IHS items may have a different meaning than in Japan or the US. The wording of several work horizons items involve expressions like “travel too far” and “far from where I grew up,” so these items can be affected by different perceptions of what “far” means. Country size would not explain the differences between Finland and Japan, however, because both have similar landmasses. Perceptions of “distance” could be affected by population density, though, with Finland’s population a fraction of that of Japan’s (5.4 vs. 127 million, respectively).

The possibility of differing perceptions of such factors needs to be studied further. These studies may be best undertaken using mixed methods, with the qualitative aspects delving deeper into the nuances of differing perceptions of item wording, both within and between cultures. This qualitative research might also attempt to link the work of Hodkinson and Sparkes (1997) that utilized Bourdieu’s concept of *habitus*, which appear to overlap somewhat with the concept of identity horizons, thereby blending theoretical traditions that to date have been conducted in relative isolation (cf. Côté, 2016).

At the same time, the IHS items identified for exclusion from cross-cultural analysis by the CFAs should be replaced so that each subscale has a minimum of five items. The process of item replacement could also include a broadening of the “net” of items to include more realms of horizons/anxieties. For example, in addition to education and work, relevant domains may include the desire to broaden horizons in cognitive areas such as intellectual, artistic, and visual-spatial abilities that reflect different forms of intelligence (Gardner, 2010), as well as behavioral spheres that enhance the young person’s social radius of experiences, which could include travel, cross-cultural experiences, and appreciations of different religions and philosophies.

This study relied on parental education as a proxy for social class, but future studies need to include better and more direct measures of social class, especially in countries where the percentage of the population with post-compulsory education is increasing considerably. Future research should also delve further into the extent to which social class background limits identity horizons by affecting students' perceptions of their own abilities and leading them to dismiss financial-aid programmes provided by their governments and educational institutions, as found by Côté et al. (2008) in their study of Canadian high-school students. Focusing on the identity horizons of those in primary and secondary schools from lower-income families, especially those whose parents are not highly educated, may be especially important to encourage and support upward mobility. These studies could be conducted with an eye to developing policies supportive of early interventions to broaden children's and adolescent's horizons and should include measures of school grades, academic engagement, and other indicators of academic ability along with parents' education, occupation and income. These studies may help to sort out the causes of intergenerational inequality that are more associated with agentic factors than structural ones. Finnish society appears to provide an excellent model that other countries can study and emulate in pursuit of these policy goals.

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Table 1  
*Identity Horizons Subscales Means and SDs by sample and gender*

Subscales	Sample					
<i>M</i> ( <i>SD</i> )	Finnish (FN)		American (US)		Japanese (JP)	
Educational Horizons	10.25 <sup>c</sup> (1.80)		9.44 <sup>b</sup> (2.46)		8.32 <sup>a</sup> (2.11)	
Work Horizons	9.94 <sup>c</sup> (1.93)		9.19 <sup>b</sup> (2.28)		7.33 <sup>a</sup> (2.21)	
Education-to-Work Identity Anxiety	3.79 <sup>c</sup> (3.85)		7.67 <sup>b</sup> (5.70)		12.76 <sup>a</sup> (4.58)	
<b>T-tests</b>	Females	Males	Females	Males	Females	Males
Educational Horizons	10.39** (1.61)	9.88** (2.18)	9.73** (2.26)	9.19** (2.59)	8.41 (1.97)	8.23 (2.24)
Work Horizons	9.77*** (2.00)	10.38*** (1.65)	9.50** (2.10)	8.92** (2.41)	7.02** (2.32)	7.64** (2.06)
Education-to-Work Identity Anxiety	3.48** (3.43)	4.59** (4.69)	6.64*** (5.45)	8.56*** (5.78)	12.45 (4.31)	13.07 (4.83)
<b>Two-way ANOVAs</b>						
Source of variation	DF	Educational Horizons	Work Horizons	Education-to-Work Identity Anxiety		
F-Tests						
Sample	2	92.697***	216.636***	431.527***		
Gender	1	14.078***	3.873*	24.969***		
Sample x Gender	2	1.120	13.061***	2.443		

Notes. FN female  $n = 430$ ; FN male  $n = 165$ ; JP female  $n = 256$ ; JP male  $n = 249$ ; US female  $n = 235$ , US male;  $n = 272$ .

Between-sample means–SNK range tests: means not sharing the same superscript letter (a, b, c) are significantly different: \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

Within-sample t-tests for gender: \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

Table 2  
*Summary of Intercorrelations Among the Subscales of the Identity Horizons Scales, by Cultural Sample and Gender*

Subscales Correlated	Sample					
	Finnish (FN)		American (US)		Japanese (JP)	
	Females	Males	Females	Males	Females	Males
Education- to-Work Identity Anxiety <b>and</b> Educational Horizons	-.19***	-.16*	-.32***	-.39***	-.16**	-.12
Education- to-Work Identity Anxiety <b>and</b> Work Horizons	-.19***	-.33***	-.26***	-.41***	.07	.10
Educational Horizons <b>and</b> Work Horizons	.11*	.07	.18**	.47***	.05	.34***

Notes. FN female  $n = 430$ ; FN male  $n = 165$ ; JP female  $n = 256$ ; JP male  $n = 249$ ; US female  $n = 235$ , US male  $n = 272$ ;

\* $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$